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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/767,177

01/30/2004

Keith R. Carver

41489

4696

1609 7590 03/22/2007

ROYLANCE, ABRAMS, BERDO & GOODMAN, L.L.P.

1300 19TH STREET, N.W.

SUITE 600

WASHINGTON,, DC 20036

EXAMINER

FIGUEROA, FELIX O

ART UNIT

PAPER NUMBER

2833

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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-3 MONTHS

03/22/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/767,177		CARVER, KEITH R.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Felix O. Figueroa		2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 December 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 and 33-36 is/are pending in the application.
- 4a) Of the above claim(s) 26-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 and 33-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

In view of the Appeal Brief filed on 12/15/2006, PROSECUTION IS HEREBY REOPENED. New ground for rejections for claims 16-25 are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing at the end of this Office action.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 15, 16-18 and 33-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Krause (US 6,343,962).

Krause discloses an electrical connector comprising a first electrical conduit assembly (10) having a first conductive contact (14) and an aperture (not labeled) in the first conductive contact; a first fastener (16) rotatably received in the aperture, the first fastener having a head member (on top, see Fig.3) and a body portion (bottom portion), a threaded passageway (not labeled, inside 16) extending from the head member to a distal end of the body portion, the distal end of the body portion being radially outwardly swaged into a substantially frustoconical configuration (see Fig.3) to prevent the first fastener from being accidentally removed from the aperture; a second electrical conduit assembly having a second conductive contact and a second fastener (col. 2 line 21-23) extending outwardly from the second conductive contact and adapted to be threadably received by the passageway of the first fastener.

Regarding claim 4, Krause discloses the aperture being countersunk to facilitate swaging the first fastener to the first conductive contact.

Regarding claim 15, Krause discloses the head member being larger than the aperture.

Regarding claim 16, Krause discloses a terminal for an electrical conduit, comprising: a conductive contact (14) having an aperture (not labeled) therein; a conductive securing member (16) having a support section (top) and a first locking section (bottom); the conductive securing member having a threaded through passageway (not labeled, inside 16) adapted to threadably receive another terminal (col. 2 line 21-23); the securing member support section being rotatably received in the aperture in the conductive contact, the locking section being formed after the support

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section is received in the aperture; and a second locking section (bottom half of the aperture) associated with the conductive contact to resist removal of the conductive securing member from the conductive contact by engaging the first locking section on the securing member.

Regarding claims 17 and 18, Krause discloses the first locking section being swaged; and the support section being larger than the aperture.

Regarding claim 33, Krause discloses an electrical connector comprising a first electrical conduit assembly having a first conductive contact (14) and a first aperture (not labeled) in the first conductive contact; a first fastener (16) rotatably received in the first aperture, the first fastener having a head member (top) and a body portion (bottom), a part of the body portion being swaged to prevent the first fastener from being accidentally removed from the first aperture; and a second electrical conduit assembly having a second conductive contact (col. 2 line 21-23), the second conductive conduct being adapted to threadably engage the first fastener.

Regarding claim 34, Krause discloses the first fastener having a threaded passageway (not labeled) extending from the head member to the distal end of the body portion.

Regarding claim 35, Krause discloses a second fastener (col. 2 line 21-23) extending outwardly from the second conductive contact, and adapted to be received by the first fastener threaded passageway.

Regarding claim 36, Krause discloses a portion (inside 16) of the body portion of the first fastener is threaded.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krause in view of Kue (US 5,975,821).

Krause discloses substantially the claimed invention except for the washer. Kue teaches the use of a (Belleville) washer (90) between a first contact (72) and a head member of a first fastener (70). This arrangement improves electrical and mechanical performance in vibrating environments. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the connector of Krause with a washer between a first contact and the head member of the first fastener, as taught by Kue, to improve electrical and mechanical performance in vibrating environments.

Claims 5, 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krause in view of Bentrim (US 6,866,456).

Krause discloses substantially the claimed invention except for the spacer. Bentrim teaches the use of a spacer (15) having a first (countersunk) opening and disposed on a proximal end of fastener (11) to allow for a floating connection and thus facilitate connection with the mating part. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the

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connector of Krause with a spacer, as taught by Bentrim, to allow for a floating connection and thus facilitate connection with the mating part.

Regarding claim 12, Krause, as modified by Bentrim, discloses substantially the claimed invention except for the material of the spacer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use brass as the preferred material for the spacer in order to provide corrosion resistance and cold workability, and since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design preference. *In re Leshin*, 125 USPQ 416.

Claims 7-10, 13, 14 and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krause in view of Rowls et al. (US 3,775,730).

Krause discloses substantially the claimed invention except for the boot assembly. Rowls teaches a boot assembly (10) disposed on the first conductive contact (24); the boot assembly having a cap (52) adapted to cover the head member (not labeled) of a first fastener (28); and having a second opening; the boot cap having a circumferential groove (under 58) on an inner wall received by a recess (under 50) of the fastener; in order to protect the conductive contact and the fastener. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the connector of Krause with a boot assembly and a boot cap, as taught by Rowls, to protect the conductive contact and the fastener.

Regarding claims 13 and 14, Krause, as modified by Rowls, discloses substantially the claimed invention except for the specific material of the boot assembly.

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to use PVC, TPR or silicon as the preferred material for the boot assembly in order to reduce cost by using material that are readily available, and since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design preference. *In re Leshin*, 125 USPQ 416.

Claims 11 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krause.

Krause discloses substantially the claimed invention except for the material of the fastener / securing member. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use brass as the preferred material for the first fastener in order to provide corrosion resistance and cold workability, and since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design preference. *In re Leshin*, 125 USPQ 416.

### ***Response to Arguments***

Applicant's arguments filed 12/15/2006 have been fully considered but they are not persuasive.

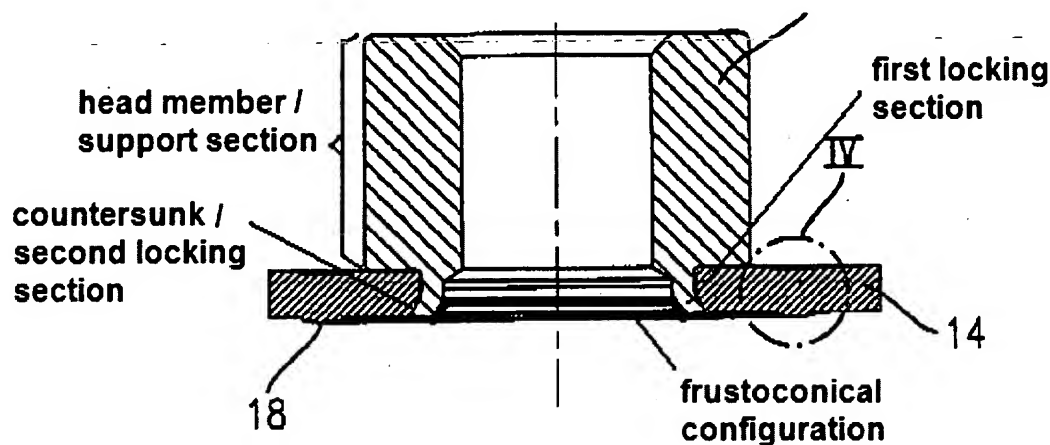
In response to Applicant's argument that Krause does not have "a fastener having a head member and a body portion and a threaded passageway extending from the head portion to the distal end of the body portion", please note that Krause discloses



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a threaded passageway, i.e. a passageway with a thread, where the passageway extends from the head portion to the distal end of the body portion.

In response to Applicant's argument that Krause further fails to disclose "a distal end of a body portion being swaged radially outward into a frustoconical configuration", please see the following figure.



In response to Applicant's argument regarding claims 4 and 15-18, see the previous figure.

In response to Applicant's argument regarding claim 35, please see col. 2 line 21-23.

In response to Applicant's argument regarding claim 36, please note that at least a top portion of the body portion is threaded.

In response to applicant's argument regarding Kue, please note that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the

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test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Kue teaches the use of a (Belleville) washer (90) between a first contact (72) and a head member of a first fastener (70). The arrangement improves electrical and mechanical performance in vibrating environments.

In response to applicant's arguments against the references individually (i.e. Bentrim), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in

the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Bentrim teaches the use of a spacer (15) having a first (countersunk) opening and disposed on a proximal end of fastener (11) to allow for a floating connection and thus facilitate connection with the mating part.

In response to applicant's argument (regarding Rowls) that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Rowls teaches a boot assembly (10) disposed on the first conductive contact (24); the boot assembly having a cap (52) adapted to cover the head member (not labeled) of a first fastener (28); and having a second opening; the boot cap having a circumferential groove (under 58) on an inner wall received by a recess (under 50) of the fastener; in order to protect the conductive contact and the fastener.

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Felix O. Figueroa whose telephone number is (571) 272-2003. The examiner can normally be reached on Mon.-Fri., 10:00am-6:00pm.

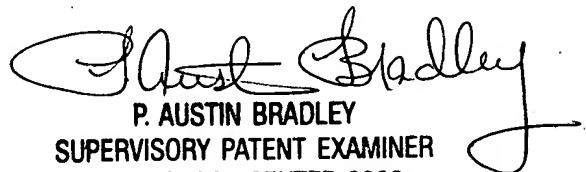
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (571) 272-2800 Ext. 33. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Felix O. Figueroa  
Primary Examiner  
Art Unit 2833



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